

REMARKS

Claims 1-12 were pending in this application. Claims 1-5 and 10-12 have been withdrawn from consideration. The amendment proposes to amend claim 6. If the amendment proposed above is entered, the claims remaining for consideration will be claims 6-9. No new matter has been added by way of this amendment.

Claims 6-9 are rejected under 35 U.S.C. §112, first paragraph for non-compliance with the written description requirement. Applicant(s) have respectfully traversed the Examiner's rejection and have amended the claims to recite the sequence identifiers for the 25 amino acid residues of the N terminal amino acid sequence of the human DEC-205 protein, as disclosed in Figure 6 of parent application U.S. serial number 09/586,704 (now SEQ ID NO: 8 in the present application), and for the 19 amino acid residues of the N terminal amino acid sequence of the human DEC-205 protein used to generate the anti-DEC-205 antibodies, this sequence also found in the parent application, U.S serial number 09/586,704, on page 56, lines 13-16 (now SEQ ID NO: 9 in the present application). As stated in the present application, on page 1, lines 7-11,

“This application is a continuation-in-part of serial no. 09/586,704, filed June 5, 2000, pending, which is a continuation of serial no. 08/381,528, filed January 31, 1995, now abandoned. Both prior applications are incorporated herein by reference in their entireties.”

In addition, a declaration under 37 CFR 1.132 has been prepared and is attached herewith to attest to the methods utilized for the preparation of the antibodies of the present invention and for which written description is provided in the specification of the parent application, U.S serial number 09/586,704 as filed. The curriculum vitae of Dr. Michel Nussenzweig is also attached herewith as Exhibit A.

In addition, a Substitute Sequence Listing and a Statement have been submitted herewith in compliance with 37 CFR 1.821-1.825 in paper and computer readable format to be inserted into the instant application to replace the Sequence Listing submitted on July 23, 2004. The substitute sequence listing now includes the carboxy terminal amino acid sequence from human DEC-205 as SEQ ID NO: 7, the amino terminal amino acid sequence from human DEC-205 as SEQ ID NO: 8, and the first 19 amino acids of the amino terminal amino acid sequence from human DEC-205 used to generate anti-DEC-

205 antibodies as SEQ ID NO: 9, all of which were disclosed in the parent application, U.S. Serial Number 09/586,704 as SEQ ID NOs: 1, 2 and 13, respectively, and were incorporated by reference in the present application. Applicants request favorable entry of the amendment and Substitute Sequence Listing and favorable further processing of the present application.

Based on the foregoing, withdrawal of the rejection is respectfully requested.

Claim Rejections under 35 U.S.C. §112, first paragraph

Claims 6-9 are rejected under 35 U.S.C. §112, first paragraph for non-compliance with the written description requirement. The Examiner alleges that the claims recite use of an anti DEC antibody, which binds human DEC-205. The Examiner alleges that the term human DEC-205 would appear to encompass mutants and variants or alleles of said human protein. In addition, the Examiner further alleges that the only human DEC-205 protein disclosed in the specification is that of the amino acid sequence of Figure 7B of parent application 09/586,704. Thus, the Examiner alleges that while the specification discloses a single example of a human DEC-205 protein, the term human DEC-205 would appear to encompass undescribed mutants and variants or alleles of said human protein. The Examiner further alleges that the claims would encompass antibodies which bound undescribed mutants and variants or alleles of human DEC-205.

Applicants respectfully traverse the rejection, and have amended claim 6 to read on the N-terminal amino acid sequence of human DEC-205 as described in parent application 09/586,704. Applicants respectfully point out to the Examiner that the sequence provided in Figure 7B of the parent application is a murine DEC-205 sequence. The human DEC-205 amino acid sequences are those provided in the parent application as SEQ ID NOs: 1 (carboxy terminal) and 2 (amino terminal), with the first 19 of the amino acids of SEQ ID NO: 2 being used to prepare the antibodies of the present invention, support for which can be found in the parent application on page 56, line 14. These amino acid sequences for human DEC-205 have now been incorporated into a Substitute Sequence Listing for the present application as follows: the carboxy terminal sequence is designated as SEQ ID NO: 7, the amino terminal sequence is designated as SEQ ID NO: 8, and the first 19 amino acid residues of the amino terminal end of the

human DEC-205 protein, used for generation of anti-DEC-205 antibodies, has now been inserted in the Substitute Sequence Listing for the present application as SEQ ID NO: 9. Support for this 19 amino acid sequence in the parent application can be found on page 56, lines 12-23.

With respect to support for the foregoing, the Examiner's attention is drawn to the parent application, 09/586,704 on page 10, lines 20-23, whereby it states:

"FIGURE 6. N-terminal amino acid sequence of DEC-205, and blotting by polyclonal antibodies. (A) The amino-terminal sequence (SEQ ID NO: 2), as determined by two different core facilities. A peptide spanning the first 19 residues was synthesized and coupled to KLH for use as an immunogen."

Furthermore, the human DEC-205 sequence used for generation of the anti-human DEC-205 antibodies is outlined on page 56, lines 12-23 of the parent application, 09/586,704:

"Polyclonal antibodies to the N-terminal peptide-- The hapten-coupling strategy focused on the lone cysteine at residue 19 (Figure 6A). Peptide N1 (SESSGNDPFTIVHENTGKC) (SEQ ID NO: 2) was coupled to keyhole limpet hemocyanin (KLH) and ovalbumin (OVA) using maleimide chemistry (Imject, Pierce). An average of about 250 peptides were conjugated to each molecule of KLH, and about 6 peptides per molecule of OVA. The KLH-peptide conjugate was divided into aliquots of 400-500 Fg each, and was injected eight times into two New Zealand White rabbits (200-250 Fg per injection), again emulsifying into CFA for the initial immunization and IFA for boosts. To remove any anti-KLH reactivity from the sera, they were precleared on a KLH-cysteine column. Anti-peptide antibodies were isolated on a peptide-OVA column, where the peptide was coupled to an irrelevant carrier."

Based on the foregoing, Applicants assert that the specification of the parent application, 09/586,704, which was incorporated by reference in its entirety, provides written description for the amino acid sequences of the human DEC-205 protein, in particular the carboxy terminal amino acid sequence of SEQ ID NO: 1, the amino terminal amino acid sequence of SEQ ID NO: 2, and the first 19 amino acids of SEQ ID NO: 2, which were coupled to a carrier molecule and used to inject animals for

preparation of anti-DEC-205 antibodies (SEQ ID NO: 13 of the parent application). The numerical sequence identifiers for these sequences in the present application are described above.

In addition, Applicants provide further support in a declaration under 37 CFR 1.132, which asserts that the human and mouse sequences provided in the parent application support the written description requirements and are sufficient for one skilled in the art to practice the invention as currently claimed. Furthermore, Applicants assert by way of this declaration that the antibodies generated against the amino terminal amino acid residues of the human DEC-205 peptide, using the methods described in the present and the parent application, recognize and bind to the human DEC-205 protein.

In light of the foregoing, Applicants respectfully request withdrawal of the rejection.

Fees

No fees are believed to be required for the present response, but if this is in error, the Commissioner is hereby authorized to charge any fees, or credit any overpayment, to Deposit Account No. 11-1153.

Conclusion

Applicants believe that the foregoing amendments to the claims place the application in condition for allowance. Withdrawal of the rejections and objections is respectfully requested. If a discussion with the undersigned will be of assistance in resolving any remaining issues, the Examiner is invited to telephone the undersigned at (201) 487-5800, ext. 118, to effect a resolution.

Respectfully submitted,



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